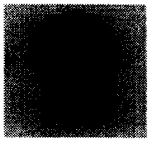
"211 State by State:" A Periodic Report on the National Implementation of Three Digit-Accessed Telephone Information and Referral Services

August, 2002

Report prepared by the Telecommunications and Information Policy Institute
University of Texas at Austin, 78712
(512) 471-5826
www.utexas.edu/research/tipi

Carolyn Cunningham, Research Associate
Dr. Sharon Strover, Principal Investigator



Contents

Tables and Figures:

Introduction

This report was originally created in the spring of 2001 in order to assess the state of 211 services nationwide. The newly approved telephone number to route callers to health and human services referrals promises to be a highly useful mechanism for more efficiently serving people in need. The report underwent revision and update in late summer of 2001, and again in the winter of 2001 and August, 2002 in an effort to make it as comprehensive and accurate as possible. Many locations not available for inclusion in the original report were added and existing data were revised, when appropriate, to reflect new developments in implementation efforts. We anticipate periodic revisions and adjustments to this report as 211 implementation develops in the coming years.

The information here was collected primarily through telephone interviews, email contacts and by searching web sites. Research that is heavily reliant on these types of sources is subject to some degree of potential error. Every effort has been made to confirm the accuracy of all data, with particular regard to cost figures and the like. As well, we caution readers that, given the pace of change in these implementation efforts, some conditions may have changed since data were gathered. This document represents an initial, easily referenced view of the evolving service communities' implementation efforts and is designed to highlight strategies, difficulties, and successes. It is a working document. If you have additional information to provide, please contact Judy Windler, the project sponsor, at Texas Health and Human Services Commission: judy.windler@hhsc.state.tx.us.

Executive Summary

This document assesses efforts across the United States to implement health and human services Information and Referral (I&R) telephone call centers accessed by "211" dialing codes. We have investigated the most pertinent aspects of 211 implementation including organizational issues, system design models, management approaches, relationships between service providers, state bodies, and telephone providers, technological issues, and common obstacles faced by implementation groups. The bulk of this research is based on interviews with representatives from planned and currently operating 211 I&R services and was supplemented by interviews with telephone companies as well as documentary research from the Internet.

As implementing 211 is an ongoing process, it is subject to a constantly changing set of data. Data reflected in this report should not be taken as the final characterization of the nature or state of 211 efforts. Many of the endeavors described here have progressed considerably since data were first collected. Rather, these data are a reflection of the best available information regarding the "state of affairs" of 211 implementation in each location. Nor is the list of implementation efforts in this report necessarily comprehensive. We suspect other implementation efforts do exist in locations not covered in this report, but information was not available at the time this report was researched and compiled.

The highlights of this report are as follows:

- **Many 211 implementation efforts have faced similar obstacles. Common obstacles include opposition and "competition" among I&R providers, telecommunications costs, cooperation issues on the part of telephone service providers (Local Exchange Carriers), and support issues from state utilities bodies.**

Though obstacles from location to location are similar, the strategies employed for overcoming them have proven distinctive.

- **The support of state utility commissions can be very helpful in smoothing negotiations with telephone service providers and with facilitating arrangements among I&R providers.**

While it is no longer necessary to petition state utility regulators for reservation of 211 dialing codes for I&R purposes, these bodies can still play a crucial role in 211 implementation. Often, utilities commissions choose to mediate pricing negotiations between Local Exchange Carriers (LECs) and 211 providers. Active involvement by commissions can prompt LEC cooperation and provide an "objective" third party to guide the development of relationships.

- **It is difficult to obtain valid cost estimates from telecommunications providers.**

Most LECs are not closely familiar with I&R, its benefits, or its technical requirements. This unfamiliarity can lead LECs to overestimate the technical needs of a 211 provider in terms of call identification, etc., and therefore provide inflated pricing schemes. Therefore, 211 providers must work to educate LECs about I&R. In turn, 211 providers must attempt to educate themselves to the greatest extent possible about telecommunications systems in the interest of providing LECs with detailed technical requirements and implementation plans. As LECs are often large corporations with offices distributed across large regions, it can be difficult to determine a "company wide" policy with regard to 211 implementation. The offices and/or departments within a phone company that are the most experienced in working with state utilities regulatory bodies will generally be the most capable in helping to establish a broad corporate position and approach to 211.

- **It is important for regional I&R providers to adopt a shared vision of the system they hope to offer. An accepted mechanism for solving problems or adjudicating competing claims is helpful.**

Generally, a single I&R organization will emerge as the "developmental leader" for 211 implementation. This organization may partner with other bodies in the interest of developing an inclusive group with sufficient political capital to claim authority in 211

development. Often, it will fall to this group to approve applications from potential 211 providers, and a standardized method of judgment is helpful in these negotiations.

- **A clear business plan is a necessary prerequisite to operational status.**

Seemingly an obvious factor, a clear and detailed business and development plan is potentially the most crucial aspect of a successful 211 bid. Commonly, such a plan is a basic requirement for entering negotiations with LECs, potential funding partners, and utilities commissions.

- **The majority of 211 implementation efforts follow a fairly predictable series of steps from initial interest among social service providers to fully operational services.**

Deployment and implementation strategies do vary from location to location as the local I&R service topography, telecommunications vendors, and state PUC environment differ. Nevertheless, patterns emerge from location to location as full implementation is realized.

- **Three design models characterize the majority of planned and operational 211 systems.**

Again, while there is some variation in the strategies for deploying 211 resources from location to location, knowledge of broad models for system design can aid those interested in 211 implementation in making decisions about appropriate strategies. The three basic design models are: Centralized Administration/Single Call Center (called Model One in this report – generally utilized in smaller geographical areas), Decentralized Administration/ Multiple Call Centers (called Model Two here – usually seen in larger states with larger populations), and Centralized Administration/Multiple Call Centers (Model Three).

Changes and Additions to This Report

This updated report includes substantial changes and additions to **Appendix A**, the heart of the report's data content. This section includes detailed entries on a state-by-state basis describing the implementation efforts for each location. **Appendix A** has been substantially revised in terms of the currency of the information it contains, and approaches a national, comprehensive assessment. Despite these revisions, some undetected 211 implementation efforts may exist.

Periodic updates to this report will reflect changing conditions in 211 activities. It will become still more comprehensive and accurate in its characterizations. As well, the report will be useful to the Federal Communications Commission (FCC) when the Commission reviews the implementation efforts behind the 211 assignment in 2005. Credit is due to those I&R, 211, and LEC representatives who contributed their time and expertise in providing the data used in this report [see **Appendix B** for a listing of sources].

211 History and Background

U.S. residents in need of social service assistance ranging from domestic violence hotlines to elderly or homeless housing assistance to simple assistance in paying utility bills are often obliged to negotiate a labyrinthine system of referrals and misdirected inquiries before locating help. At times, assistance is never reached, even if it is available in the area. The common difficulties encountered by those in need in securing social service assistance and those desiring to provide it led to a nationwide effort to create a system of simple, easily-recalled telephone access to health and human services. The utility of nationally ubiquitous three-digit dialing combinations - "abbreviated N11 services" - for emergency services (911) and directory assistance (411), as well as the growing use of non-emergency police services (311), led Information and Referral (I&R) representatives and organizing bodies to conclude that the public interest would best be served if the "211" dialing code was reserved for access to social service I&R services.

Some exemplary use of 211 was demonstrated by the June, 1997 installation of a 211-based I&R service operated by the United Way of Metropolitan Atlanta. This system made use of an existing I&R service, its call center and expertise. The creation of United Way 211 in Atlanta was followed in 1999 by a similar, though statewide, system operated by the United Way of Connecticut and has been joined by a growing national movement of I&R services and coalitions interested in building similar systems.

In May, 1998, the National 211 Collaborative, including the Alliance of Information and Referral Systems (AIRS), United Way of America, United Way 211 (Atlanta), United Way of Connecticut, the Florida Alliance of Information and Referral Services, Inc. (FLAIRS), and the Texas Information and Referral Network filed a petition with the Federal Communications Commission (FCC) requesting national assignment of 211 dialing codes for social service Information and Referral. Recognizing that N11 dialing codes are a scarce resource, the 211 Collaborative argued that a compelling public need exists for this use of 211 that is not satisfactorily met by existing 911, 411, or 311 services. The FCC ruled July 21, 2000 in favor of 211 proponents, declaring that this use of 211 best satisfies the public interest.

Since the FCC ruling, efforts toward implementing 211 services have continued in some states and begun in many others, with widely varying results. Some 211-accessed I&R systems have become operational within a few months of initial efforts, while others have met considerable obstacles on many fronts, including challenges from within the I&R community, lack of support from state regulatory bodies, prohibitively high rates from Local Exchange Carriers (LECs) – local telephone companies – for delivery of 211 service, and opposition from other potential N11 service providers. To date, every operational 211 I&R service consists of a single, centralized call center servicing a locality (defined here as a metropolitan area or limited county grouping) or a very small state [see "211 System Design Models"]. Some locations, such as Georgia, have *approached* statewide coverage with several call centers, but no multiple-call center system is yet fully "integrated" with regard to database sharing and administration. Many non-statewide 211 systems are designed with the express intention of "scaling up" to include greater geographic scope, often with the assumed goal of joining with other 211 providers to facilitate integrated statewide coverage. Currently, Connecticut's Infoline is the sole *statewide* provider of 211-accessed I&R services, though most other providers' implementation plans include statewide coverage as an eventual goal.

Stages of 211 Development

Implementing 211 services varies a great deal from location to location in terms of specific obstacles faced by 211 providers, strategies adopted for ensuring success in implementation, and the organizational features of the group backing 211. It is nevertheless possible to see certain common features across efforts as 211 groups progress from no substantial organization to fully operational 211 systems. These commonalities can be grouped into four main development stages, as detailed below. **Table 1** details the current (August, 2002) development stage for each 211 effort. Understanding the common approaches and problems among 211 service groups is useful for groups just beginning to think about implementing 211 since they can help to shape implementation strategies. We identify features of development in terms of negotiations with local telephone companies, the internal organizational structure of the groups or collaboratives backing a 211 plan, communications with and endorsement of plans by state utility commissions, aspects of a business plan for services as well as aspects of an operational plan for providing service.

It should be clear that these characterizations are intended to reflect general trends in the implementation process. Considerable variations can exist in an individual location in the order of "steps" followed. Particularly in locations containing smaller populations (and consequently, smaller I&R infrastructure) certain elements of collaboration might be omitted entirely. In these cases, an I&R service provider may still find success in 211 implementation even if implementation is approached on a "stand-alone" basis, with single I&R call centers carrying out implementation negotiations and efforts on their own, with the presumed initial goal of providing 211 service solely for the local area, without the support of other I&R agencies, local or state bodies, etc. Efforts that follow this pattern may find it easier to develop 211 capabilities more quickly than efforts more dependent on collaborative agreement but may also encounter obstacles that may be more easily resolved with the support developed through collaboration. In the initial stages of 211 planning, therefore, it is crucial to fully assess the needs and resources available in an area, and to determine from these assessments how the steps outlined below may be applied best to the needs of the individual site.

The stages outlined below reflect, to some degree, the "ideal" approach to 211 implementation for an area of average population and average I&R resources. Many efforts have found success in implementation by creating and following their own version of these stages. Conversely, some implementation efforts have stalled even when the most careful planning is followed. The resources and political characteristics of each location are unique and must be taken into careful consideration throughout each planned implementation phase.

Development Stage One – The Initial Stage

In the initial stage, one or more organizations have expressed interest in developing 211 capabilities in their state. Some motions toward collaboration among I&Rs and/or service agencies have been made to this end. Meetings have been held among potential service providers, non-I&R 211 supporters, community governmental bodies, and non-211 I&R agencies to help answer questions and challenges and to provide closer collaborative support. Telecommunications industry associations, state

utilities bodies, state human services bodies, United Ways, specialized and comprehensive I&Rs, and community bodies such as libraries and city councils are often included in initial collaborative formation. Initial contacts have been made with local exchange companies (LECs) and with state utilities commissions.

Development Stage Two – The Collaboration Stage

As groups gather more information and assess feasibilities, the core collaborative group has an identity and makes a concerted effort to develop operational design models and to determine what mixture of technical - database and telecommunications - resources will best meet community needs. Relationships with state utilities commissions are developed, often with the result of explicit PUC support or "official 211 designation." At times, the "lead developer" – the group set to direct 211 development – is incorporated as an independent body. As well, state legislation is sometimes pursued to further legitimize implementation efforts and to officially establish state support. Relationships with LECs are developed, and the group has established contacts and avenues by which to communicate technical requirements to the community of telecommunications providers. At this stage, groups consider database and technology issues in terms of organizing call center capabilities, and in terms of identifying potential pilot sites for the service.

Development Stage Three – The Negotiation Stage

After these intensive planning processes, a viable business plan will be adopted, and any internal challenges between I&Rs largely have been resolved. Specific technical requirements are indicated to LECs who have made subsequent efforts to provide cost estimates. Pilot sites are fully determined and contractual agreements between service providers for service coverage may be in place. Support from state utilities commissions is explicit, and often they take direct action to aid, if necessary, in telecommunications negotiations.

Development Stage Four – The Operational Stage

In the final stage, 211 services are operational. While 211 services may not yet be provided on a statewide basis, plans are underway to provide or approach statewide coverage.

***Table 1*: State by State Development Stage of 211 Implementation, etc.**

State	Development Stage	System Design	Call Centers*	Population**
Alabama	Operational[1]	Decentralized	6	4,447,100
Alaska	Initial	Unknown	-	626,932
Arizona	Collaboration	Decentralized	2	5,130,632
Arkansas	(no activity)	-	-	2,673,400
California	Collaboration	Decentralized	Unknown	33,871,648
Colorado	Negotiation	Decentralized	5-7	4,301,261
Connecticut	Operational	Centralized	1	3,405,565
Delaware	Collaboration	Centralized	1	783,600
Florida	Operational[2]	Decentralized	8	15,982,378
Georgia	Operational[3]	Decentralized	6+	8,186,453
Hawaii	Operational	Centralized	1	1,211,537
Idaho	Negotiation	Centralized	1	1,293,953
Illinois	Initial	Unknown		12,419,293
Indiana	Negotiation	Decentralized	12-15	6,080,485
Iowa	Negotiation	Decentralized	8	2,926,324
Kansas	Collaboration	Unknown	Unknown	2,688,418
Kentucky	Negotiation	Decentralized	10-12	4,041,769
Louisiana	Operational[4]	Decentralized	3+	4,468,976
Maine	Collaboration	Decentralized	3-5	1,274,923
Maryland	Collaboration	Decentralized	3-6	5,296,486
Massachusetts	Negotiation	Decentralized	8-9	6,349,097
Michigan	Operational[5]	Decentralized	10-15	9,938,444
Minnesota	Operational	Combination Decentralized and Centralized	9 "hubs" + 1 central call center	4,919,479
Mississippi	Initial	Unknown	Unknown	2,844,858
Nebraska	Negotiation	Decentralized	2-3	1,711,263
New Hampshire	Negotiation	Centralized	1	1,235,786
New Jersey	Negotiation	Decentralized	Unknown	8,414,350
New Mexico	Operational[6]	Decentralized	4-5	1,819,046
New York	Negotiation	Decentralized	10	18,976,457
North Carolina	Operational[7]	Decentralized	4+	8,049,313
North Dakota	(no activity)	-	-	642,200
Ohio	Negotiation	Decentralized	6-8	11,353,140
Oklahoma	Negotiation	Centralized	1	3,450,654

		(pilot)		
Oregon	Negotiation	Decentralized	Unknown	3,421,399
Pennsylvania	Collaboration	Decentralized		12,281,054
Rhode Island	Negotiation	Centralized	1	1,048,319
South Carolina	Operational[8]	Decentralized	Unknown	4,012,012
South Dakota	Operational[9]	Centralized (pilot)	1	754,844
Tennessee	Operational[10]	Decentralized	Unknown	5,689,283
Texas	Negotiation	Decentralized	25	20,851,820
Utah	Operational[11]	Decentralized	6	2,233,169
Vermont	Negotiation	Centralized	1	608,827
Virginia	Collaboration	Decentralized	6	7,078,515
Washington	Collaboration	Decentralized	4+	5,894,121
West Virginia	Collaboration	Decentralized	6-8	1,808,344
Wisconsin	Operational[12]	Decentralized	5-10	5,363,675
Wyoming	(no activity)	-	-	493,782

* - Number of call centers is, in some cases, approximate and based on estimates from 211 representatives.

** - Population data from United States Census Bureau, 2000. http://www.census.gov

[1]- Operational 211 call center is locatedin Montgomery, Alabama. See **Appendix A** for more information.

[2] - Operational 211 call centers in Florida are located in Brevard (Titusville, Melbourne, Cape Canaveral, etc.), Broward/Ft. Lauderdale, Hillsborough (Tampa Bay), Martin, Palm Beach, and Pinellas (St. Petersburg) Counties. See **Appendix A** for more information.

[3] - Operational 211 call centers in Georgia are located in Athens, Atlanta, Columbus, Macon, Northwest Georgia, and Savannah. See **Appendix A** for more information.

[4] - Operational 211 call centers in Louisiana are located in Lafayette and New Orleans. See **Appendix A** for more information.

[5]- Operational 211 call centers in Battle Creek. See **Appendix A** for more information.

[6] – Operational 211 call centers in New Mexico are located in Albuquerque and Roswell. See **Appendix A** for more information.

[7] - Operational 211 call centers in North Carolina are located in "The Triangle", "The Triad", Asheville, and Central North Carolina. See **Appendix A** for more information.

[8]- Operational 211 call centers in Aiken. See **Appendix A** for more information.

[9] - An operational 211 call center is located in Sioux Falls. See **Appendix A** for more information.

[10]- An operational 211 call center is located in Knoxville. See **Appendix A** for more information.

[11]- An operational call center is located in Salt Lake City. See **Appendix A** for more information.

[12]-An operational call center is located in Milwaukee County. See **Appendix A** for more information.

Definitions:

Development Stage 1 (Initial): One or more organizations have expressed interest in developing 211 capability in their state. Some motions toward collaboration among I&Rs and/or service agencies have been made to this end.

Development Stage 2 (Collaboration): Collaborative groups have been formed and a concerted effort is underway to develop operational models, relationships

with Utilities Commissions, and relationships with LECs. Database issues and technology issues in terms of call center capabilities are under consideration.

Development Stage 3 (Negotiation): A viable "business plan" has been adopted, technical requirements have been indicated to LECs who have made subsequent efforts to provide cost estimates, call center locations and technical specifications have been determined.

Development Stage 4 (Operational): 211 services are operational.

System Design Models

Existing 211 systems utilize one of three basic operational designs. **Table 1** characterizes each 211 effort in terms of its adopted or proposed design type. The design models described here are similar to models described in previous reports, though refinements have been made. Decisions made by present or potential 211 service providers concerning designs for the interactions among call centers, database(s), and staff are generally contingent upon the scope of the project being implemented in terms of both geography and population. Predictably, large populations require more complex network systems to ensure standardized delivery of 211 services, while smaller populations' needs can be met with simpler system designs. Slight variations in the operational details of each model are found from system to system, but each system proposed or implemented to date falls into one of the three categories.

The first and simplest model is the **Centralized Administration/Single Call Center Model (Model One)**. This model is typically utilized when 211 services are made available in a single locality (county grouping or metropolitan area) or in a very small state. The second model is the **Decentralized Administration/Multiple Call Center Model (Model Two)** and the third is the **Centralized Administration/Multiple Call Center Model (Model Three)** or "mixed" model. The latter two models are typically utilized in larger states and, to date, are often implemented via scalable installation of select pilot sites. **Figure 1** provides a basic graphic description of each model. Each model presents its own advantages and difficulties in database management, call translation costs, and staffing requirements.

Key issues in database management include questions of compatibility and scope. If data are to be shared between call centers, taxonomic standards must be adhered to and infrastructure must be provided for data transfer. Call translation* varies greatly from model to model, as 211 calls may be translated to seven- or ten-digit local numbers ("point-to numbers") for routing to a nearby call center or may be translated to a toll-free number for routing to a more distant call center. Predictably, call centers serving broad areas will likely experience higher call translation costs, as more central offices are involved and as toll-free services may be necessary. Staffing issues vary between design models in fairly predictable ways as larger centers require more staff than smaller centers and in non-apparent ways as smaller call centers may have to devote greater funding to retain accredited staff for adherence to AIRS standards (see **Appendix D** for AIRS 211 Call Center Standards).

In the remarks below, we do not mean to suggest that certain states exclusively conform in all ways to the models presented. Indeed, definitions for certain elements of service may often depend on the scope of the operation. As an example, if a 211 provider operates a single call center in a single county of Ohio, operations will likely be best categorized under Model One. However, if one extends the scope of operations to Ohio as a whole, it becomes clear that Ohio should consider the elements noted within Model

---

* - When an N11 call is placed by a consumer, the N11dialing code is received and "read" by the nearest central office (switch). Central offices are computerized routing stations utilized by telephone companies to direct calls to the correct location on the network. At the central office level, the N11 dialing code is "translated" into a seven- or ten-digit "point-to" number, which is then routed through the network in a manner identical to any other call.

Two. Unless otherwise noted, all discussions of design models and implementation strategies in this report should be assumed to refer to a statewide scope. The inclusion of a state under a given model should not be taken to imply that a state's 211 system is operational or that our evaluation is absolute. Rather, in **Table 1** we have used available information to estimate the status of a location's current "state of affairs" with regard to 211 implementation. The designs below may change over time as 211 operations themselves develop.

Model One – Centralized Cost and Community Voice

The simplest model for 211 implementation consists of a single call center under the administration of a single I&R body. Typically, this model is used when 211 services are available only to a locality (small to medium-sized county grouping or in a metropolitan area) or to a small state. Examples of this model exist in Connecticut, Idaho (a single call center will likely serve the whole of this state's small population), New Hampshire, Rhode Island, and Vermont.

Databases under this model are typically housed at the call center where they also are maintained and updated. Calls are commonly routed through a 211-to-toll-free-number translation, though 211-to-local (seven- or ten-digit) or "local long-distance" number translation is possible as well when the service area is sufficiently limited (as is the case, for example, in Lafayette, Louisiana). Generally, the costs incurred for 211 translation services are the lowest of the three models.

One consideration for a Centralized Administration/Single Call Center 211 system (particularly those systems covering the entirety of a small state) is the maintenance of "community presence." Based on the notion that a caller from a given community is best served by a specialist explicitly familiar with that community and its available services, 211 systems falling into Model One often employ "community specialists" who staff the central call center from the area in which they live and, in that sense, "represent" it for I&R purposes. United Way of Connecticut's Infoline makes use of this staffing model, and Traveler's Aid/Helpline of Rhode Island will follow suit.

Model Two – Decentralized Utilization of Community Resources

For larger states and populations, multiple call centers, whether local or regional in scope, are generally necessary. Often, a 211 collaborative or partnership group will exist in a state with the purpose of guiding and facilitating 211 implementation, and it may administer a local or regional call center itself, but will not have the capability or interest in directly administering the larger group of 211 call centers as a whole. In these cases, previously existing and generally comprehensive I&R providers may be enlisted to help the collaborative group, each administering its own call center(s) and database capabilities. This usually requires negotiating independent contracts with LECs as necessary to provide service in the areas, with the collaborative group often providing marketing support and standards oversight services (e.g., with respect to training staff, ensuring that databases are current, and so forth). States utilizing these elements include California, Florida, Georgia, Indiana, North Carolina, New York, Ohio, Tennessee, and Utah.

Databases in this model are generally housed at respective call centers and are administered, maintained, and updated by staff employed by the call centers themselves. Varying degrees of database "shareability" and compatibility are evident across the states. It should be made clear that this categorization does not preclude statewide

database construction and sharing, though *most* Model Two states do not yet have concerted efforts to create such database facilities. Calls are commonly routed through a 211-to-toll-free-number translation, though 211-to-local (seven- or ten-digit) or "local long-distance" number translation is possible as well when the service area is more geographically limited.

One consideration for call routing under this model is "rollover capability." Call volume may not justify providing 24-hour coverage in all of a state's 211 call centers. Nevertheless, adherence to AIRS 211 standards requires 24-hour coverage. Thus, after-hours calls placed in the service areas of smaller call centers can be routed or "rolled-over" to larger, 24-hour call centers. This routing is achieved "transparently," although it generally incurs further charges from phone companies since central offices must be programmed to translate 211 to one "point to" number during business hours and another for evening/night/weekend coverage. Community Connection of Athens, Georgia is an example of a 211 center that "rolls-over" to a 24-hour I&R (in this case, United Way 211 of Metropolitan Atlanta). In such cases, provisions must be made to provide the 24-hour call center with database information from the smaller center. In the Athens-Atlanta example, Community Connection's database is accessible via the World Wide Web and therefore is readily available to Atlanta's 211 call center.

A large variation is seen among states pursuing these more regional approaches in terms of specific implementation strategies. Salt Lake City's Information and Referral Center (a lead 211 developer in Utah), for example, appears to take a somewhat more *laissez faire* approach to implementing 211 service statewide, as I&R providers in areas outside Salt Lake City determine their own needs, capabilities and strategies for 211 implementation. Indiana will utilize twelve to fifteen regional call centers while Ohio's version of the model could *potentially* have a 211 provider in each of its 88 counties (though, in reality, many of Ohio's call centers will provide service for a multi-county area).

The majority of states pursuing 211 implementation fall into the characterizations offered as Model Two. While some of these systems may eventually demonstrate characteristics more reflective of an advanced stage of development, current data suggest that initial rollout plans adopt the operational elements presented above.

Model Three – Mixed "Transparency" in Technology

A centralized administration with multiple call centers achieved by one organizational body represents a different model. States planning to utilize this model include Massachusetts, Oregon, Texas, and Washington.

As call center operations are centrally administered, so too database operation and maintenance under Model Three are centralized. Typically, call centers are linked to each other and to a centralized database via a Wide Area Network (WAN), which in turn may utilize broadband T1 circuits, ISDN circuits, etc., with or without Internet Protocol (IP) communications. Each call center is responsible for maintaining its own "section" of the statewide database, and updates are generally carried out daily when appropriate. It should be made clear that utilization of these elements does not necessarily preclude the construction, maintenance, and housing of individual databases by individual call centers. Rather, it is the use of a centralized database for *essential* operation that distinguishes the design. Calls are commonly routed as in other models. This model generally allows for simpler "rollover" between call centers, particularly with respect to database access. No

state yet demonstrates an operational system that is centralized and integrated in this fashion, although the states mentioned above explicitly plan to move in that direction.

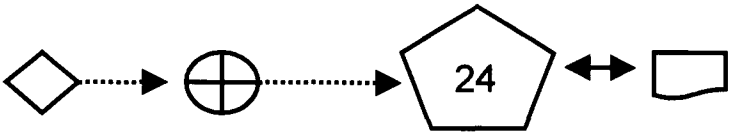
Additional Design Variation – Regional Technical Centers

While most states' 211 implementation models can be categorized into one of these models, variations in specific model elements still exist. One example of this variation is seen in the California 211 Steering Committee's investigation of Regional Technical Centers (RTCs). RTCs allow for the provision of enhanced telecommunications services to smaller call centers that may not be able to afford such services on their own. Some of these enhanced services include natural voice recognition (for efficient and appropriate call routing) and TTY services, and the RTCs can be designed with the capability of easily adding in future enhancements. As an example, if an RTC provided coverage for a three-county area in Southern California, a 211 call placed in Bakersfield (Kern County) would be routed to the nearest RTC. The RTC would determine the caller's location based on area code and prefix and route the call to the appropriate 211 call center. The most appropriate call center would *likely* be the one in Kern County, but could also be the call center that handles Bakersfield's off-hours calls.

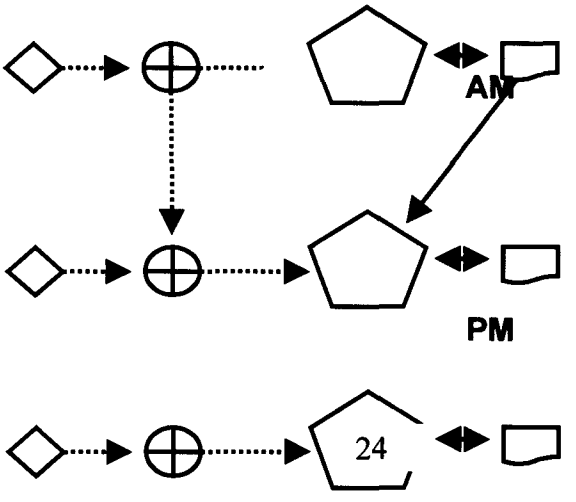
Regional Technical Centers are an expensive undertaking. PacBell has indicated that installation of a single RTC in Southern California providing services similar to those in the example above would cost approximately $1.4 million. With the cost also comes a greater degree of efficiency and "transparent" service. Inquiries rolled-over to a 24-hour call center are answered with the caller never knowing that the call center is not in the immediate community. Information regarding the basic nature of the call allows for the most appropriate response to the caller's problem. Finally, RTCs allow for such enhanced services to be provided without individual call centers being required to fund expensive technical enhancements in-house.

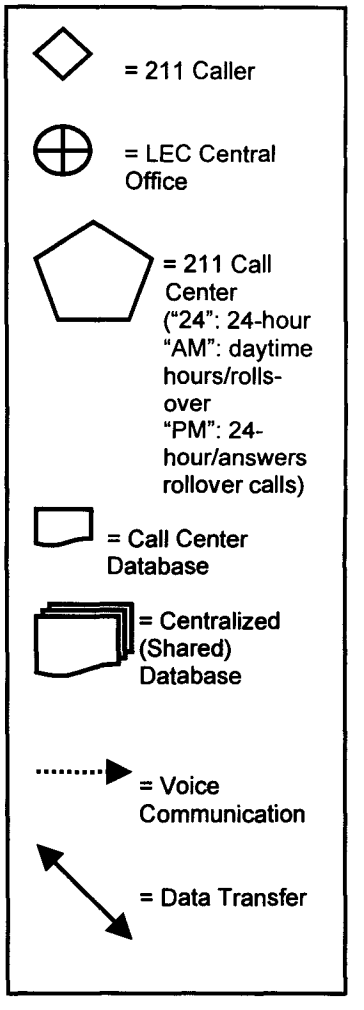
***Figure 2*: 211 System Design Models**

Model One

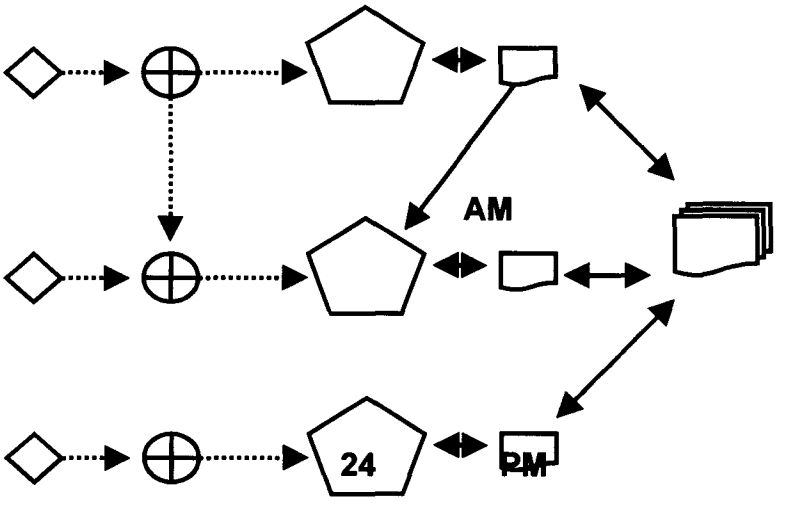


Model Two





Model Three



Issues in 211 Implementation and Possible Solutions

The favorable FCC ruling on assigning 211 to health and human services referral was only the beginning of a challenging implementation phase. Organizations attempting to implement 211 systems face considerable obstacles on a number of fronts. Reluctance on the part of LECs to provide timely information regarding pricing requirements, prohibitively high telephone service fees, lack of support by state utilities bodies, and challenges among competing I&R providers are among the most commonly-cited problems encountered by members of the 211 community.

I&R Opposition

A common and contentious obstacle faced by some organizations involved in 211 implementation is opposition from other groups and organizations providing I&R services. Smaller, specialized I&R providers often fear that their services will be rendered redundant (or will be perceived as such) by the introduction of an easily marketed, easily remembered dialing number for I&R access. This fear is especially acute when providing 211 service requires expanding database capabilities in an existing I&R, thereby often duplicating referral information housed in smaller agencies' databases. Doubts are occasionally voiced concerning a comprehensive 211 provider's ability to handle the difficult counseling protocols necessary among specialized, crisis-oriented hotline services.

This issue is frequently resolved by maintaining strong avenues of communication among I&R service providers. For example, Tennessee's Knoxville Information and Referral, Inc. conducts monthly meetings for area I&R agencies focusing on inter-agency communication and information sharing. Referral statistics are shared, database taxonomies are refined, agencies are profiled, advice is given, and so on, in an effort to build community among I&R providers. Queries best handled by specialized agencies are directed to those agencies by211. In this forum, 211 is positioned as a tool rather than a hindrance to more specialized I&R services.

Multiple I&R Providers

At times, inter-agency disputes occur when more than one I&R agency in a given service area wishes to be the designated 211 provider for that area. Particularly in large metropolitan areas, multiple comprehensive, 24-hour I&Rs may exist and may appear equally qualified to deliver 211 service in terms of call center capability, database management, and so on. Even when not "equally" qualified, smaller I&Rs may challenge the right of another I&R service to provide 211 coverage. As the FCC 211 ruling does not specifically describe a means of evaluating between I&Rs, and as AIRS is a guiding and accrediting rather than a *governing* body, 211 service commonly ends up being "granted" to the first agency able to negotiate agreements with LECs.

At times, a particular I&R or collaborative group will be designated by the state's Public Utilities Commission (PUC) as the "lead" developer of 211 service. Generally, the lead developer will be "vested" with the ability to evaluate agencies applying to provide 211 service and to grant contracts accordingly. Also, while the FCC's 211 ruling

does not specifically describe state PUCs as the designating authority for 211 services (see **Appendix C**), the PUC relationship to LECs can determine the tenor of negotiations between LECs and I&Rs. Specifically, if a PUC rules that LECs must negotiate provision of 211 service with "lead developers", LECs will favor those officially-designated leaders over "competing" I&Rs. States with PUC-211/I&R relationships and designating "authority" of this type include Alabama, Georgia, Louisiana, Michigan, New Mexico, New York, Massachusetts, North Carolina, Ohio, Tennessee, Texas, Utah, Vermont, and West Virginia.

Upon designation as a "lead developer" for 211 services (whether by PUC rule, legislation, or collaborative consensus), a lead organization then has the authority to designate future 211 service providers - in effect, to choose among any "competing" applicant agencies to determine who is to provide 211 service. Methods for this determination are varied. Mass211, Inc. accepts and directly administers Request For Proposal (RPF) bids by candidate agencies [see **Appendix A**]. The Ohio Council of Information and Referral Providers asks that "community bodies" (libraries, city councils, area social service agencies, etc.) provide letters of support to candidate agencies, effectively allowing community bodies to "vote" for who is to provide 211 service in their area [see **Appendix A**]. California's 211 Steering Committee has adopted the same evaluation method as Ohio.

A common feature of lead developers tends to be their incorporation as private, not-for-profit bodies. While lead developers may operate under the "umbrella" of larger, more established organizations such as AIRS or the United Way, the creation of an "independent face" for a group can aid in creating a coherent strategy necessary for the development of opportunities with regard to funding and organization. Occasionally, such groups are appointed by state utilities regulatory commissions or by state legislatures. Such bodies tend to carry the greatest political "weight" in 211 implementation and tend to bring representatives from all elements of an implementation effort together at once (I&R representatives, LECs, state human services bodies, etc.). Several states have such incorporated designations placed on the lead developer, including Connecticut, Indiana, Massachusetts, New Jersey, Rhode Island, and Vermont. As well, while it seems an obvious relationship, those developers that manage to create dedicated positions for 211 efforts, even if on a part-time basis, tend to experience the most rapid and smooth implementations.

A key feature of successful collaborative bodies tends to be inclusiveness. An ideal group includes representatives not only from the I&R community, but also from utilities commissions, local and county government, state social services bodies, legislators, telecommunications associations, and LECs (universities and libraries are commonly added to this list). The presence of these otherwise disparate elements "at the same table" creates more opportunity for all involved to educate themselves and each other regarding the proper functioning of all the elements of an effective 211 system.

Telephone Company Cooperation

With few exceptions, one of the more difficult subjects encountered in 211 implementation concerns 211 providers and the telephone system they utilize. Often, I&R providers have little technical knowledge of telephone communication beyond intra-office, PBX-type routing systems. Likewise, LECs often have little knowledge of the technical requirements (or even the very function) of I&R providers under 211. Commonly, this leads to an over-estimation of potential costs on the part of LECs

negotiating with 211 providers as LECs assume that 211 will require technical capabilities similar to those needed for emergency 911, non-emergency 311, or other "enhanced" three-digit dialing services. As no standard pricing scheme has been outlined or adopted for 211 service, LECs generally are free to determine costs with little reference to the actual costs of services provided. In fact, since 211 services should guarantee anonymity to callers, the expensive capability to identify and locate callers is precisely what 211 services do not need or want. Furthermore, as three-digit dialing, or "N11" services are considered a scarce and potentially lucrative resource, LECs often oppose their designation for I&R services. Taken together, these three factors – lack of knowledge of technical requirements and preferred system design by potential 211 providers, lack of understanding on the part of LECs regarding these same concerns, and a preference on the part of some LECs for alternative uses for 211 – often lead to slow movement on the part of LECs in 211 negotiations.

For example, to date the Traveler's Aid of Rhode Island (TARI) has seen its development of 211 slowed while Verizon determines pricing requirements. As of January, 2001, TARI was prepared organizationally, technically in terms of call center and database requirements, and financially to provide 211 service in Rhode Island. LEC negotiations represented the final hurdle to 211 implementation. Though Verizon, which provides telephone coverage for 90% of Rhode Island, was provided with detailed technical requirements for 211 setup and operation, no indication was given of estimated costs until April, 2001. By late summer, 2001, Verizon had stated to TARI that, barring an official recognition of TARI's authority in 211 negotiation, it would be difficult for Verizon to move forward with implementation [see **Appendix A** for more information].

Another potential limitation experienced in LEC negotiations is the lack of intra-corporate uniformity demonstrated on the part of LECs with regard to 211. The majority of the LECs involved in 211 implementation are large corporations with holdings and interests stretching across large segments of the United States. At times, while a 211 developer might feel that substantial progress is being made in LEC negotiations, a case of "one hand not knowing what the other is doing" on the part of the LECs multiple offices can lead to frustrated efforts when negotiations begin to move up the corporate "chain of command." Because Verizon has established a pricing plan for 211 services in Florida does not mean that Verizon's offices in the Northeast are prepared to offer comparable services for comparable rates (or even that they are familiar with them). BellSouth is an obvious exception to this problem, as the company has taken an established position on 211 implementation, creating tariffs specific to 211 services which are closely uniform across its service territory. Qwest is another large LEC that is in the process of developing uniform pricing plans for 211 services across its territory. Generally, it is those offices of an LEC dealing most directly with state public utilities regulators that will be the most capable of helping to establish a corporate position.

To a degree, "extended" negotiations with LECs may also be attributable to the relatively low revenue generated by the provision of 211 service. Local Exchange Carriers often build tremendous revenue from the sale of enhanced services to large business and state clients. While an LEC might be entirely interested in providing 211 service from a "theoretical" standpoint, the revenues generated by the service do not, in themselves, justify a great deal of practical attention on the part of the LEC. The provision of 211 service is therefore given a low priority, with resulting negotiations taking far longer than seems necessary from the perspective of the hopeful and ready 211 provider.

Telecommunication Costs

Despite the relatively low revenues generated for Local Exchange Carriers by 211 services, the cost of obtaining telecommunications services from LECs is the most common hindrance cited by hopeful 211 providers. Costs can accumulate rapidly, particularly for initial setup, and can often be extremely difficult for smaller I&R agencies to cover. As well, costs can vary tremendously from area to area and from phone company to phone company. At times, a 211 provider may service an area under the "jurisdiction" of more than one LEC, thereby requiring separate negotiations (and separate pricing plans) for complete coverage.

N11 pricing is generally divided into two distinct categories: Service Establishment and Ongoing/Maintenance costs. Service Establishment costs generally consist of an administrative charge (which may be determined by the number of point-to numbers, the number of Basic Local Calling Areas covered by a given 211 provider, or a number of other methods) as well as a charge for the programming of central offices to process N11 calls (these charges are generally accrued per-central office). Ongoing/Maintenance costs are generally incurred on a monthly basis, and may consist of a flat rate Monthly Recurring Charge (MRC), a per-call charge, a per-central office charge, a charge based on call volume, or some combination thereof (BellSouth's tariffed 211 service rates do not include ongoing costs of any type). **Table 2** details the costs (when available) for 211 implementation and maintenance for each location.

Initial information gleaned by the Indiana 211 Partnership (IN211) for the three primary LECs in the state suggested a great variation in costs between initial and ongoing translation costs. For example, with current information, one-third of Indiana's central office switches could be implemented with $11,000.00 toward initial translation costs through Sprint and other smaller LECs. Yet, if the one-third of Indiana's central offices in Ameritech/SBC territory were made consistent with pricing in the Ameritech/SBC tariff filed in Wisconsin, initial implementation would cost IN211 $139,500.00. Initial costs obtained from Ameritech (prior to their filing of the tariff in Wisconsin) suggested $7,000.00 in monthly recurring costs. Such costs are difficult, if not impossible, for many I&R providers to support, particularly when a single LEC often cannot provide statewide coverage and other companies must be enlisted. Sprint, the third primary LEC in negotiations in Indiana, and other smaller LECs in Indiana have not indicated any proposed MRC.

Support from state utilities bodies again can help to mitigate and overcome such obstacles. Public Utilities Commission rulings can provide a foundation from which negotiations can be pursued, and can provide some degree of cost regulation for 211 services. An example of this is seen in the 211 implementation being pursued by United Way of North Carolina. The North Carolina Public Utilities Commission (NCPUC) requires LECs to file separate tariffs for each of the pilot sites being made operational. As well, NCPUC has ruled that upon submission of proposed rates for setup and MRCs by the LECs the earliest of these submitted will constitute the standard required for each phone provider (a "precedent cap"). Such precedent caps help to ensure that 211 service is provided at fair rates (see **Appendix A** for more information).

Tariffs

Tariffs can provide the means to develop appropriate pricing plans specific to the requirements of 211 and place these pricing plans on record with state utilities commissions. **Table 2** details those locations for which a tariff specific to 211 services is in place. In telecommunications parlance, a tariff is nothing more than a document filed with the state utilities commission describing available telecommunications services in detail and providing the specific costs associated with retaining those services. Tariffs are subject to approval by state utilities commissions and therefore are often revised when a utilities commission believes that conditions warrant. Since the FCC 211 ruling, numerous tariffs specifically designed for 211 service have been filed. Areas with tariffs specifically designed for 211 service include several states in Qwest's territory (Arizona, Colorado, Idaho, New Mexico, Oregon, Utah, Washington, etc.), areas serviced by Alltel Communications (segments of Georgia and South Carolina), and the entirety of BellSouth territory (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee).

Generally, the 211 tariffs from state to state within an LEC's territory are closely similar in content, if not identical. In the cases of both BellSouth and Qwest, initial tariff filings applied to 211 service were designed for more generalized N11 services (which often require more enhanced capabilities than are necessary for 211 access). These tariffs were later revised, thereby reducing the amount paid by 211 providers for telephony.

Table 2: LEC Costs for 211 Service Establishment and Maintenance

State (date)[1]	LEC	Tariff / Contract[2]	Service Establishment Costs	Ongoing Costs[3]
Alabama (8/23/01)	BellSouth	Tariff	$389.90 per local calling area + $150.00 per central office	None
Alaska	-	-	-	-
Arizona	Qwest	None	Unknown	Unknown
Arkansas	-	-	-	-
California (7/28/02)	~~PacBell~~ Sprint SBC	~~None proposed~~ None proposed None proposed	~~Unknown~~ Unknown Unknown	~~Unknown~~ Unknown Unknown
Colorado (7/28/02)	Qwest	Tariff	$300.00 per point-to number + $30.00 per central office	$.02 per call
Connecticut (7/28/02)	SNET (SBC)	Contract	$9,000 for statewide system	$.06 per minute
Delaware (7/28/02)	Verizon	None proposed	Unknown	Unknown
Florida (7/28/02)	BellSouth Verizon Sprint	Tariff Contract Tariff	$389.90 per local calling area + $182.00 per central office $120.00 per central office $100.28 per central office	None $40.00 per central office MRC and contract renewal fee for 3 yrs. Unknown flat rate MRC
Georgia (7/28/02)	~~BellSouth~~ ALLTEL	~~Tariff~~ Tariff	~~$389.00 per local calling area~~ + $155.00 per central office $500.00 per local calling area	~~None~~ $35.00-$100.00 MRC per local calling area (based on call volume)
Hawaii (2/6/02)	Verizon	None proposed	Unknown	Unknown
Idaho (7/28/02)	~~Qwest~~ GTE	~~Tariff~~ None	~~$300.00 per point-to number~~ + $30.00 per central office Unknown	~~$.02~~per call Unknown
Illinois				
Indiana (7/28/02))	Ameritech/SBC Verizon Sprint	None proposed None proposed None proposed	 $120.00 per central office Unknown	 $50.00 per-central office Initial indications include an MRC of unknown amount.
Iowa (7/28/02)	Qwest	Tariff	Unknown	$0.02 per call (rejected by IUB)
Kansas (7/28/02)	SBC	None proposed	Unknown	Unknown
Kentucky (7/28/02)	BellSouth	Tariff	$389.90 per local calling area + $150.00 per central office	None
Louisiana (7/28/02)	BellSouth	Tariff	$389.90 per local calling area + $150.00 per central office	None
Maine (7/28/02)	Verizon	None proposed	Unknown	Unknown
Maryland (7/28/02)	Verizon	None proposed	Unknown	Unknown
Massachusetts (7/28/02)	Verizon	None proposed	Approximately $54,000.00 for statewide system	Unknown
Michigan (7/28/02)	~~Ameritech~~ Verizon	~~None proposed~~ None proposed	~~Unknown~~ Unknown	~~Unknown~~ Unknown